

## **REMARKS**

Claims 1-12 were examined and reported in the Office Action. Claims 1-3- are rejected. New claims 13-17 are added. Claims 1-12 are amended. Claims 1-17 remain.

Applicant requests reconsideration of the application in view of the following remarks.

### **I. Claim Objections**

It is asserted in the Office Action that claims 4-12 are objected to under 37 CFR 1.75(c) as being in improper form. Applicant respectfully disagrees. Applicant submitted a preliminary amendment mailed on February 3, 2005 including amended claims 4-8 and 10-12. In these amended claims, the claims were amended to proper form.

Accordingly, withdrawal of the claim objections for claims 4-12 are respectfully requested.

### **II. 35 U.S.C. § 112, second paragraph**

It is asserted in the Office Action that claims 1-3 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claims 1 and 3 to overcome the 35 U.S.C. § 112, second paragraph rejections.

Accordingly, withdrawal of the 35 U.S.C. § 112, second paragraph objections for claims 1-3 are respectfully requested.

### **III. 35 U.S.C. § 103(a)**

It is asserted in the Office Action that claims 1-3 are rejected in the Office Action under 35 U.S.C. § 102(b), as being anticipated by U. S. Patent No. 4,504,310 issued to Bacos et al. ("Bacos"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2142

[t]o establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. (In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Further, according to MPEP §2143.03, “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).” *All words in a claim must be considered* in judging the patentability of that claim against the prior art.” (In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970), emphasis added.)

It is asserted in the Office Action that Boulier discloses a process that includes preparing a metal alloy including chromium and aluminum with oxide inclusions, agglomerating the alloy together with a reducing agent to form balls or pellets, and subjecting these balls or pellets to heating in a vacuum to reduce the inclusions. Boulier, however, does not teach, disclose or suggest the elimination of a surface layer from the final product as recited in claim 1.

As asserted in Applicant's original specification, the technical effect of the elimination of a surface layer is not only the known polishing effect but also, and above all, the increase of the purity of the balls or pellets, this effect was not previously known before Applicant's claimed invention.

Bacos does disclose, in the background, the use of tribofinishing for polishing a rough coating. Bacos, however, does not disclose the use of tribofinishing for improving the purity of balls or pellets. It should be mentioned in this regard that in the production of balls or pellets, the appearance of the balls or pellets is not a vital concern. The customer will of course appreciate to have pellets with a smooth, bright appearance, but the main concern is the purity of the pellets which has a direct influence on the quality of parts made with these pellets. In

particular, for producing delicate parts of aeronautical turboshaft engines, the chromium must have a high purity with a low oxygen content (see Boulier, col. 1, lines 45-48).

Bacos relates to the problem of protecting metal parts operating at high temperatures (such as aeronautical turbine blades) against corrosion or oxidation. In particular, Bacos discloses a method for producing an alloy that can be used as a coating for delicate parts. Bacos simply cites, in the background, a known deposition technique in which the coatings are rough and require a post-operative machining followed by tribofinishing (see Bacos, col. 2, lines 31-32).

Therefore, an ordinary person skilled in the art intending to purify pellets made by the process disclosed in Boulier, would not find in Bacos the solution to this technical problem. Indeed, the ordinary person skilled in the art will only find that the tribofinishing in Bacos is used for reducing the roughness of the pellets, which is unrelated to the problem to be solved by Applicant's claimed invention.

Applicant discovered that an unexpectedly high concentration of impurities was found in the skin region of the balls or pellets, so that elimination of the surface by tribofinishing would significantly improve the purity thereof, without sacrificing too large of a quantity of material. Therefore, adding the elimination step to the process disclosed by Boulier would not be obvious for an ordinary person skilled in the art.

Even if Boulier is combined with Bacos, the resulting invention would still not teach, disclose or suggest

preparing a metal or a metal alloy having non-metallic inclusions comprising oxides of the base metal; pelletizing the metal or the alloy with a reducing agent in order to form the granules; processing the granules in a vacuum so that the reducing agent reacts on the inclusions; and eliminating a surface layer from the granules.

Since neither Boulier, Bacos, and therefore, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant's amended claim 1, as listed above, Applicant's amended claim 1 is not obvious over Boulier in view of Bacos since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claims that directly

or indirectly depend from amended claim 1, namely claims 2-3, would also not be obvious over Boulier in view of Bacos for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) objection for claims 1-3 are respectfully requested.

**IV. Claims Not Rejected Over Prior Art**

Applicant notes that claims 4-12 are not rejected over prior art. Applicant adds new claims 13-17, which correspond to claim 1 and in combination with claims 4, 5, 6, 7 and 8, respectively. Therefore, Applicant asserts new claims 13-17 should be allowable over the cited prior art.

Applicant respectfully asserts that claims 1-17, as they now stand, are allowable for the reasons given above.

## **CONCLUSION**

In view of the foregoing, it is submitted that claims 1-17 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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## **CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence is being submitted electronically via EFS Web on the date shown below to the United States Patent and Trademark Office.

  
Jean Svoboda

Date: June 12, 2007